

## Total parenteral nutrition

Total parenteral nutrition (TPN) is the use of mixture of amino acids, vitamins, electrolytes, trace elements and an energy source (glucose and fat) in the long – term feeding of patients who are unconscious or unable to take food.

- ❖ All or most of the ingredients to feed a patient for 1 day are combined aseptically in one large (3 L capacity) collapsible plastic bag.
- ❖ Transfer of amino acid, glucose and electrolyte infusions, and the addition of vitamins and trace elements must be carried out with great care under aseptic conditions to avoid microbial contamination.
- ❖ These solutions often provide good growth conditions for bacteria and moulds.
- ❖ Fats are administered as oil - in - water emulsions.
- ❖ Many vitamins may be administered as a single dose at various time intervals
- ❖ The product usually contains both essential and non - essential amino acids rather than fully formed protein.
- ❖ A mixture of carbohydrate (glucose) and fat (as an emulsion) provides the energy and electrolytes, trace elements and vitamins are included as required.
- ❖ During preparation, TPN fluids are compounded from individual solutions or emulsions.

- ❖ Generally, the bulk of the final volume is derived from glucose solutions, amino acid solutions and fat emulsions; small - volume solutions are added to these before filling.
- ❖ During compounding, electrolytes are added to the amino acid solutions and phosphate salts to the dextrose (glucose) solutions, which are then mixed and the lipid emulsions added.

Antibiotics	Chemotherapeutic agents
Antibiotics are effective against bacteria, usually by breaking down the cell wall.	Chemotherapeutic agents are poisons used to fight cancer.
These are given to ward off infection after surgery or injury, or for diseases like TB that are caused by bacteria.	Cancer cells are "young" because they are rapidly dividing. "Young" cells are more vulnerable to poisons, and also radiation in radiation therapy.
Antibiotics are fairly safe, although their misuse or overuse can be disastrous.	Chemotherapy can be a very difficult experience.
They also kill "friendly" bacteria that inhabit every inch of your body. These friendly colonies help keep malicious bacteria from getting a foothold.	Although the target is cancer cells, the whole body is poisoned. This and radiation is why cancer patients so often lose hair, are nauseated, etc

Antibiotics are agents that are derived from certain microorganisms, and are used to kill or inhibit certain microorganisms, which is not synthesized in the laboratory.	On the other hand, Chemotherapeutic are agents that are synthesized in the laboratory.
interferon. It is an effective antiviral. This type of drug gives therapy for diseases like HIV and hepatitis which are caused by viruses.	The chemotherapeutic agent dacarbazine, or DTIC.